the period given, one would have been able to considerably reduce the duration of the " heat/'

The example shows once more that the ainount of oxygen which was used up per unit of time in oxidation of all reducing agents cannot be regarded as a scale for the furnace performance. This quantity of oxygen attained, viz., in the foregoing example, in the first 31 minutes the colossal height of

16.213x0-421 00 , ., . , „ , . , , -------- —------

~22 kilogrammes per minute, of which only

OJL

2'3 kilogrammes pertain to the carbon, T7 kilogrammes to the manganese, and quite 18 kilogrammes alone to the silicon, whilst the quantity of oxygen .made useful for the entire charge was only 5'36 kilogrammes per minute.

It has actually resulted that deviation in the composition of the pig iron which at times is unavoidable in the blast furnace, need only have a small influence on the production of the open-hearth furnaces. One obtains reckoning from tapping to tapping, thus including repairs to hearths:

Per cent.		Per hour.	
From pig iron with 0*6 Si average	of 8 charges,	4,440	kg.
„ „ ,, „ I'O	„ „	15 „	4,820 „
„ „ „ '„ 1'5	,, „	14 „	4,590 „
,, „ „ „ 2-0	„ „	4 „	4,540 „
„ „ „ ,,2-5 to 2*8 Si	„	7 „	4,490 „

This is, therefore, evidence that the open-hearth furnace is not only a very forbearing, but also a very complete apparatus; it is capable of working, with only small additional efforts, materials of the most varied composition, and is in this respect far superior to the acid or basic Bessemer converter.